

Amendments to the Specification:

Please replace paragraph [0051] with the following amended paragraph:

[0051] The mutations in the adenovirus fiber can be one or more amino acid substitutions, insertions, deletions, or combinations thereof. In some embodiments, the mutations are typically induced, non-natural mutations. In exemplary embodiments, the mutations in the fiber knob can be in the exposed loop regions between the A and B, B and C, C and D, D and E, E and F, F and G, G and H, H and I, and/or I and J β sheet(s). As a result of their spatial location in the native fiber, the exposed loop residues are capable of recognizing and/or interacting directly or indirectly with a blood factor protein. In specific embodiments, mutations can be in the AB, EF and/or HI exposed loop(s), and/or in the exposed above-mentioned β sheets to reduce or ablate the affinity or avidity of the fiber for the blood factor protein. In an exemplary embodiment, an Ad5 fiber knob comprises a Y477A substitution, a deletion of amino acids 489-492 in the FG loop, and an insertion of the peptide SKCDCRGECFCD (~~SEQ ID NO:1~~) (SEQ ID NO:8) at position 547 of the HI loop. In additional embodiments, the mutations can be in the AB and EF, EF and HI, or AB and HI exposed loops. In yet other embodiments, the mutation can be in an exposed loop and in a β sheet. For example, a mutant fiber knob comprise a mutation in the AB, EF and/or HI exposed loop(s) and in the A, B, C, D, E, F, G, H, and/or J β sheet(s).

Please add the paper copy of the sequence listing enclosed herewith to the end of the application.